

Abstract

MULTIPLE LED SOURCE AND METHOD FOR ASSEMBLING SAME

5 A light source is formed using a plurality of light emitting diodes (LEDs). A first layer
of material, transparent to the light emitted by the LEDs, is placed over the plurality of LEDs.
Light passes through the first layer of material from the LEDs to a phosphor layer disposed on
the other side of the first layer. Light is converted in the phosphor to produce broadband,
white light. The first layer of material may be reflective at the wavelength of the converted
10 light, so that converted light propagating back towards the LEDs is reflected into the forward
direction. The phosphor material may be formed as patches on the first layer. An array of
couplers, such as reflective couplers, may be used to couple the wavelength converted light
produced by each LED into respective optical fibers.